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J. COYLE

2,535,838

METHOD OF MAKING A TABLET BOX

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Fig. 1.

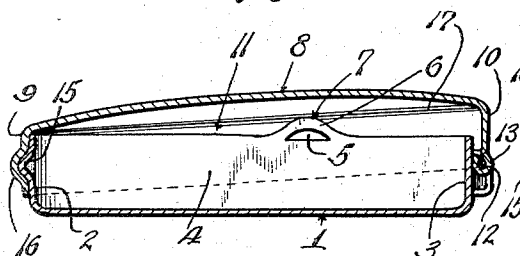


Fig. 2.

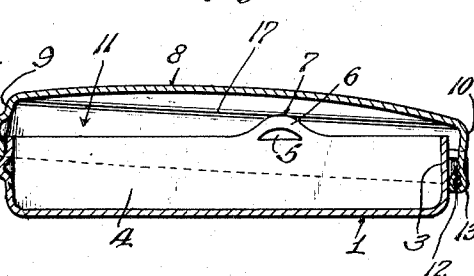


Fig. 3.

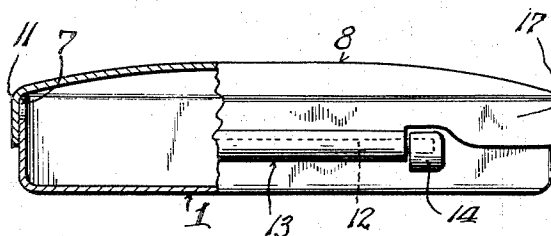


Fig. 4.

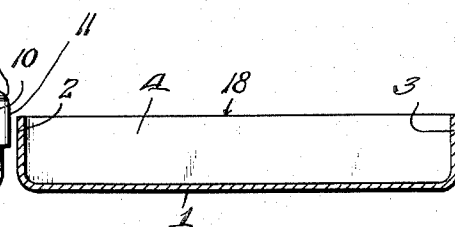


Fig. 5.

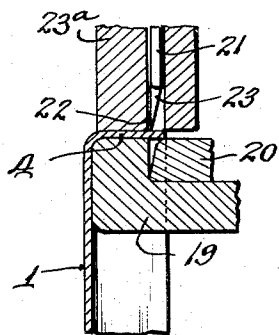


Fig. 6.

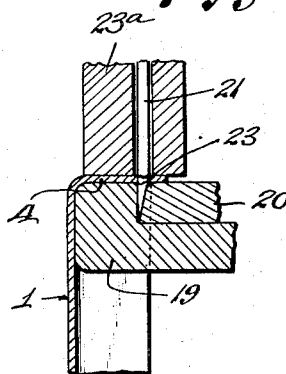
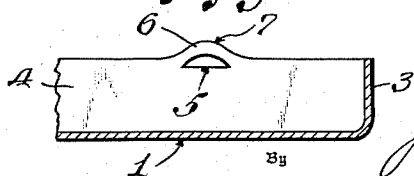


Fig. 7.



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UNITED STATES PATENT OFFICE

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METHOD OF MAKING A TABLET BOX

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1 Claim. (Cl. 113—120)

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The invention relates to new and useful improvements in a method of making a tablet box, which box is of the type wherein the cover rests and fulcrums on the side walls of the body and the cover may be pressed upon at the rear thereof for unlatching the same.

An object of the invention is to provide a method of making a tablet box of the above type wherein the edge portions of the side walls of the body are slit and the metal set off by the slitting of the walls expanded in the plane of the side wall so as to provide rounded extensions which serve as fulcrum supports for the cover on which the cover rocks when pressed upon at the rear for unlatching the same.

In the drawings—

Figure 1 is a longitudinal sectional view through a tablet box embodying the improvements, the section being taken centrally of the box from front to rear;

Figure 2 is a view similar to Figure 1 but showing the rear portion of the box pressed upon and the cover moved to unlatched position;

Figure 3 is a view partly in rear elevation and partly in section and showing the floating hinge and also the cover resting on the extensions of the body wall;

Figure 4 is a view on a smaller scale showing the first step in the formation of the body portion of the box by the improved method;

Figure 5 shows one of the side walls placed upon a support and a penetrating and shaping tool which may be used for penetrating the side wall and expanding the metal in the plane of the side wall to form a fulcrum extension on which the cover rocks during the unlatching of the same, the parts being positioned ready for penetrating and expanding the metal of the side wall;

Figure 6 shows the wall penetrated and expanded by the penetrating tool;

Figure 7 is a sectional view through a portion of the body showing one of the side walls as penetrated and expanded to form the fulcrum extension.

The tablet box made by the new method includes a body portion and a cover, each having a rear, front and side walls integrally connected to the top and bottom, respectively. The body of the box is made from a single piece of metal by die-shaping. The cover is also made from a single piece of metal by die-shaping. There is a floating hinge connection between the cover and the body which permits the cover to move up and down on the body at the hinge con-

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nection for releasing a yielding latch which secures the cover to the body when the cover is in closed position.

After having die-shaped the body so as to provide the front, rear and side walls, each side wall is subjected to a penetrating and shaping tool which penetrates the side wall at a point spaced from the upper edge thereof. This penetrating tool is so shaped that as it is forced in through the side wall it will cause the portion of the metal between the penetration and the upper edge thereof to expand outwardly and upwardly in the plane of the wall into a rounded extension which is to serve as a fulcrum support on which the cover is rocked during the unlatching of the same.

Referring to the drawings, the novel method of forming the tablet box with these rounded extensions serving as fulcrum supports will be described in detail. The body portion includes a bottom 1, a front wall 2, a rear wall 3, and side walls, one of which is shown at 4. The body, therefore, is substantially rectangular in shape with rounded corners. The side wall of the body is cut by a penetrating tool along the line 5. This sets off a portion 6 of metal lying between the cut edge and the upper edge of the body wall, which is expanded outwardly and upwardly in the plane of the side wall to form a rounded extension 7.

The cover includes a top portion 8 having a front wall 9, a rear wall 10 and side walls, one of which is shown at 11. This cover is dimensioned so as to engage over the body of the box.

The cover is secured to the body by a floating hinge. This floating hinge includes a pintle 12. The rear wall of the cover is rolled inwardly and thence upwardly to form a bead 13 in which the pintle 12 is located. The rear wall 5 of the body is slit vertically and the metal is bent outwardly so as to provide rearwardly projecting housings 14, 14. The pintle extends into these housings and the housings are of sufficient height so that the pintle is free to move up and down therein to a limited extent. This type of floating hinge is shown and described more in detail in the patent granted Louis Hermani, on September 10, 1941, No. 2,257,682.

The front wall of the body portion is provided with an outwardly extending nib 15 and the front wall of the cover is provided with a protuberance 16 forming a recess adapted to receive the nib for holding the cover in closed position. This provides a yielding latch which may be released when the cover is pressed upon at the rear side.

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thereof. The cover is shown in Figure 3 as having a dome-shaped top. This dome-shaped top joins the side walls 11 on a straight line, indicated at 17. The top of the cover adjacent this straight line 17 rests on the rounded fulcrum extensions carried by the side walls of the body of the box.

In Figure 1 the cover is shown in closed position and the top of the cover at the rear of the box is spaced away from the top edge of the body wall by reason of the fact that the cover rests on these rounded extensions of the body walls. When it is desired to unlatch the cover, it is pressed upon at the rear side thereof. The floating hinge will allow the rear of the cover to move downward, rocking on these rounded extensions as fulcrum supports, and this will force the recess from engagement with the nib and unlatch the cover. The cover can then readily be swung to full open position on the pintle 12 as a hinge.

The invention is particularly directed to the method of making these extensions on which the cover fulcrums and the novelty therein may possibly be best understood from a brief description of the method of making the same. The body is made by die-shaping a metal blank so as to provide the bottom and side walls, as indicated in Figure 3. The body is preferably made from a blank of sufficient size so that the body can be formed without trimming and the necessary waste of material. This leaves the side walls of the shaped body on a straight line, indicated at 18 in Figure 4.

In Figures 5 and 6 there is shown a means for carrying out the method of forming the rounded extensions on which the cover fulcrums. The side wall 4 is placed on an anvil support 19 which includes a slidable member 20. A penetrating tool 21 is provided with a sharp edge 22 and a forming portion 23 which is shaped so as to gradually expand the metal outwardly in the plane of the side wall to form the rounded extension. This penetrating and forming tool reciprocates in a suitable frame structure, indicated at 23a. The cutting edge of the tool 21 first penetrates the side wall. As it passes down through the side wall, it will gradually expand the portion of the side wall 6, lying between the cutting edge and the free edge of the body wall into the rounded extension 7, shown in Figure 7.

The metal is cut along the line 5 and is forced

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laterally away from the cut edge and drawn and expanded into arch-shape, which lies in the plane of the wall, and thus the fulcrum extensions on which the cover rocks are produced.

It will be noted that by the improved method described, this raised extension forming the fulcrum support is produced from the metal of the side wall. This results in a considerable saving of metal and at the same time it forms a very durable support on which the cover rests and rocks when pressed upon for unlatching the same.

It is obvious that the method of producing the side wall extensions may be varied, but it is essential that the metal shall be penetrated, cut and expanded so that the extension is formed from the metal of the side wall which is initially of uniform height throughout.

I claim:

The method of making a tablet box consisting in die-drawing a metal blank to provide a body having front, rear and side walls of substantially uniform height, die-drawing a metal blank to form a cover having front, rear and side walls dimensioned so as to engage over the body of the box, slitting each side wall of the body adjacent the outer edge thereof and expanding the metal between the slit and the edge of the wall outwardly in the plane of the wall to form a rounded fulcrum portion extending above the edge and on which the cover rests when closed and rocks when pressed upon at the rear for unlatching the cover and connecting said cover to the body at the rear walls thereof by a floating hinge which permits the cover to be rocked on its fulcrums for unlatching the same.

JOHN COYLE.

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